

[Claim 1]

A disk apparatus comprising a chassis outer sheath having a base body and a lid, in which

a front surface of said chassis outer sheath is formed with a disk inserting opening into which a disk is directly inserted, a spindle motor and a pickup are held by a traverse provided on said base body,

a slider mechanism is disposed on one end of said traverse, said base body is rotatably provided with a pulling-in lever which inserts said disk and with a discharging lever which discharges said disk,

said slider mechanism is provided with a first cam groove in which a first pin of said pulling-in lever slides and with a second cam groove in which a second pin of said discharging lever slides,

said pulling-in lever is turned by sliding motion of said first pin in said first cam groove as said slider mechanism is operated, and said discharging lever is turned by sliding motion of said second pin in said second cam groove as said slider mechanism is operated, wherein

said slider mechanism includes a resilient member which expands and contracts in the sliding direction of said slider mechanism, a first movable piece provided on one end of said resilient member, and a second movable piece provided on the other end of said resilient member, said first movable piece constitutes a portion of said first cam groove, and second movable piece constitutes a portion of said second cam groove.

[Claim 2]

The disk apparatus according to claim 1, wherein said first pin displaces said first movable piece by a load applied to said pulling-in lever from said disk, and said second pin displaces said second movable piece by a load applied to said discharging lever from said disk.

[Claim 3]

A disk apparatus in which a base body is provided with a pulling-in lever which inserts a disk, a discharging lever which discharges said disk and a slider mechanism which turns said pulling-in lever and said discharging lever,

said slider mechanism is provided with a first cam groove in which a first pin of said pulling-in lever slides and with a second cam groove in which a second pin of said discharging lever slides,

said pulling-in lever is turned by sliding motion of said first pin in said first cam groove as said slider mechanism is operated, and said discharging lever is turned by sliding motion of said second pin in said second cam groove as said slider mechanism is operated, wherein

said slider mechanism includes a resilient member which expands and contracts in the sliding direction of said slider mechanism, a first movable piece provided on one end of said resilient member, and a second movable piece provided on the other end of said resilient member, said first pin displaces said first movable piece by a load applied to said pulling-in lever from said disk, and said second pin displaces said second movable piece by a load applied to said discharging lever from said disk.

[Claim 4]

A disk apparatus in which a base body is provided with a pulling-in lever which inserts a disk and a slider mechanism which turns said pulling-in lever,

said slider mechanism is provided with a cam groove in which a pin of said pulling-in lever slides,

said pulling-in lever is turned by sliding motion of said pin in said cam groove as said slider mechanism is operated, wherein

said slider mechanism includes a resilient member which expands and contracts in the sliding direction of said slider

mechanism, and a movable piece provided on one end of said resilient member, said movable piece constitutes a portion of said cam groove, and said pin displaces said movable piece by a load applied to said pulling-in lever from said disk.

[Claim 5]

A disk apparatus in which a base body is provided with a discharging lever which discharges a disk and a slider mechanism which turns said discharging lever,

said slider mechanism provides with a cam groove in which a pin of said discharging lever slides,

said discharging lever is turned by sliding motion of said pin in said cam groove as said slider mechanism is operated, wherein

said slider mechanism includes a resilient member which expands and contracts in a sliding direction of said slider mechanism, and a movable piece provided on one end of said resilient member, said movable piece constitutes a portion of said cam groove, and said pin displaces said movable piece by a load applied to said discharging lever from said disk.

[Claim 6]

The disk apparatus according to claim 2 or 3, wherein when said first pin displaces said first movable piece, the displacement of said second movable piece is limited by said second pin, and when said second pin displaces said second movable piece, the displacement of said first movable piece is limited by said first pin.

[Claim 7]

The disk apparatus according to any one of claims 1, and 3 to 5, further comprising a stopper mechanism which stops movement of said slider mechanism at a predetermined position by displacement of said first or second movable piece with respect to a slider.

[Claim 8]

The disk apparatus according to claim 7, wherein said slider is provided with a stopper which moves from a standby position to an operation position by displacement of said first movable piece corresponding to said pulling-in lever with respect to said slider, said stopper which moves to the operation position abuts against a stopper receiver which is provided on a predetermined position of a fixing portion, and said slider stops at a predetermined position.

[Claim 9]

The disk apparatus according to claim 7, wherein said slider is provided with a stopper which moves from a standby position to an operation position by displacement of said second movable piece corresponding to said discharging lever with respect to said slider, said stopper which moves to the operation position abuts against a stopper receiver which is provided on a predetermined position of a fixing portion, and said slider stops at a predetermined position.

[Claim 10]

The disk apparatus according to claim 7, wherein said slider stops at a position where said traverse has not yet risen, by displacement of said first movable piece corresponding to said pulling-in lever with respect to said slider.

[Claim 11]

The disk apparatus according to any one of claims 1, and 3 to 5, wherein said resilient member comprises a compression coil spring.